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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,854	09/22/2005	Andrew K. Stuart	64142(52855)	3618

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EXAMINER	
D'ANGELO, MICHAEL J	

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4185	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,854	STUART ET AL.	
	Examiner	Art Unit	
	MICHAEL D'ANGELO	4185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09/22/2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *64-87* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *64-87* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/22/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 64-66, 68, 71-75, and 86-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154).

Regarding claim 64, Sperie discloses an apparatus with a first sensor for detecting heart rate and a second sensor for detecting the position of a horse (column 6, lines 46-51), determining movement rate of the horse (abstract lines 4-5), determining a health status indicator (column 5, lines 36-37) using a predetermined algorithm which includes determining a low heart rate during low speed exercise and a heart rate during high speeds (column 12, lines 55-59)and a fitness indicator in accord with the velocity (column 12, lines 64-67), but fails to disclose performing a linear regression or calculating a velocity from the line wherein the velocity is one of a heart rate of 200bpm or a maximum.

However, Suga discloses a linear regression line (view figure 7) and calculating a velocity at a maximum heart rate (see dotted line corresponding to 75% of max HR in figure 7).

5. It would have been obvious to one of ordinary skill in the art to modify the teachings of Sperie to include a linear regression incorporating a velocity calculation at a maximum heart rate as taught by Suga. Doing so would allow one to estimate what the equines velocity would be at a given heart rate so they could calculate traveling time around a track while keeping the horse below dangerous heart rates.

Regarding claims 65 and 66, Sperie discloses that the low heart rate is determined during trotting after at least three minutes (column 12, lines 55-59).

6. Although a specific time is not given for when the heart rate is measured it is very inherent that measurements are being taken after three minutes since it is a continuous measuring system.

Regarding claim 68, Sperie discloses the health status indicator includes heart rate (column 6, lines 46-51).

Regarding claim 71, Sperie discloses the processing module being coupled to a display (*monitor-12,* view figure 3*)* indicating position data.

Regarding claims 72 and 74, Sperie discloses the display being wirelessly mounted on the rider (column 6, lines 33-37 and column 7, lines 4-5), but fails to disclose it being mounted to the bridle.

7. It would have been obvious to one having ordinary skill in the art at the time the invention was made to mount the display on the bridle, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re* ***Japikse, 86 USPQ 70.***

Regarding claim 73, Sperie discloses at least one antenna and display being coupled to the rider (column 6 lines 33-37 and column 7, lines 4-5; it is noted that a wireless monitor must have an antenna to transmit and receive signals), further including a cable and connector that can disengage if the rider falls (column 4, lines 63-67).

Regarding claim 75, Sperie discloses a GPS sensor (column 6, lines 46-48).

Regarding claim 86, Sperie discloses a processing system which includes a communications device for receiving the indicating and position data (*monitor-12,* column 5, lines 34-41).

Regarding claim 87, Sperie fails to discloses the linear regression line is determined according to HR=a+bV.

However, Suga the linear regression line is determined according to HR=a+bV

(view figure 8 and shown linear formula).

8. It would have been obvious to one of ordinary skill in the art to modify the teachings of Sperie to include a linear regression with said formula as taught by Suga. Doing so would give an accurate and simplified method for relating velocity and heart rate.

9. Claims 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154) and further in view of Coetzee (5,924,980)

Regarding claim 67, Sperie fails to disclose deleting outlier values.

However, Coetzee discloses removing maximum values (i.e. HRmax) (column 6, lines 45-47).

13. It would have been obvious to one of ordinary skill in the art to modify the teachings of Sperie to include deleting outlier values and taught Coetzee. Doing so would give more accurate measurements over time.

10. Claims 69, 76-78, and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154) and further in view of Scanlon (US 5,853,005).

Regarding claims 69 and 77, Sperie as modified by Suga disclose all of the claim limitations from above except for the sensors being in a blanket.

However, Scanlon discloses a sensor located in a blanket (column 8, lines 29-31).

Given the teachings of Scanlon, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of Sperie to include the sensors in a blanket.

Doing so would provide both a safe and convenient location for the sensors to be housed during riding.

Regarding claim 76, Sperie as modified by Suga disclose all of the limitations of claim 69. Sperie also discloses the second sensor being worn by the rider (column 6, lines 35-37), but fails to disclose a connector for coupling the sensor to the blanket.

However, Scanlon discloses a connector for coupling the sensor to the blanket (column 8, lines 29-31, if the sensor is incorporated into the blanket it is inherent that it must have a connecting means).

Given the teachings of Scanlon, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of Sperie to include a blanket with a connecting means.

Doing so would ensure that the sensor does not fall off during exercise.

Regarding claim 78, Sperie as modified by Suga disclose all of the claim limitations from above except for wherein the blanket further includes a power supply connected to the sensors.

However, Scanlon discloses that the blanket further includes a power supply connected to the sensors (column 10, lines 2-5).

Given the teachings of Scanlon, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of

Sperie to include a blanket with a power supply in it connected to the sensors.

Doing so would provide a covering for the power keeping it safe during training.

Regarding claim 80, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69. Sperie further discloses a communication device (*monitor-12),* coupled to the first and second sensors to thereby transfer indicating data and position data to a remote CPU (column 8, lines 37-40 and column 5, lines 19-21).

Regarding claim 81, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69. Sperie further discloses a store to store at least one of the indicating and position data to the CPU (column 5, lines 34-41).

Regarding claim 82, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69. Sperie further discloses a first heart rate sensor in contact with the horse (column 6, lines 49-51, and column 8, lines 25-27), but fails to disclose an electrode.

It is inherent that if a sensor is sensing the heart rate of the horse it must have an electrode so as to actually measure the given parameter.

11. Claims 70 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154)and Scanlon (US 5,853,005) further in view of Nilseen (US 5,999,094).

Regarding claims 70 and 79, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69, but fail to disclose a batter connected to the first and second sensor and a first inductive coupling, provided in a

recess in the process module and wherein in use, the batter is recharged by having the first inductive coupling part cooperate with the second part proved in a protrusion forming part of a hanging mechanism, the second part being coupled to an external power supply.

However, Nilseen discloses a battery (*Rbhp)* connected to the first and second sensor and a first inductive coupling (*IPULhp, view figure 11)* provided in a recess in the process module and wherein in use, the battery is recharged by having the first inductive coupling part cooperate with the second part (*ISL1)* the second part being coupled to an external power supply (column 22, lines 28-30) so as to charge the battery, (column 22, lines 9-14, view figure 11), but fails to disclose the protrusion and hanging mechanism.

It would have been obvious to take the inductive charging system taught by Nilseen and apply it to the protrusion and hanging system since inductive charging was well known in the art at the time of the invention. Also it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of Sperie to include the inductive powering system of Nilseen. Doing so would allow for easy recharging of the system.

12. Claims 83 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154) and further in view of Mackta (US 5,912,811).

Regarding claims 83 and 84, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69, but fail to disclose that

the blanket includes at least one wire embedded in the blanket, the wire being adapted to connect the first sensor to the electrode, where the blanket is woven and the wire is integrated in the weave.

However, Mackta discloses that the blanket includes at least one wire embedded in the blanket, the wire being adapted to connect the first sensor to the electrode (column 4, lines 61-67) where the blanket is woven and the wire is integrated in the weave (all fabrics are made of woven fabrics therefor the wire is integrated within it).

Given the teachings of Mackta, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of Sperie to include a blanket with an embedded wire to connect the electrode and first sensor. Doing so would ensure that the electrode and sensor are in communication at all times while also protecting the wire from harm.

13. Claim 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sperie (US 7,062,895) in view of Suga (US 5,301,154) and further in view of Centa et al. (US 5,263,244).

Regarding claim 85, Sperie as modified by Suga and Scanlon discloses all of the claim limitations according to claim 69, but fail to disclose the first sensor being removably mounted to a pouch, including one or more connectors adapted to cooperate with the detectors, to couple the sensors to the blanket.

However, Centa et al. discloses the first sensor being removably mounted to a pouch, including one or more connectors adapted to cooperate with the detectors, to

couple the sensors to the blanket (column 4, lines 20-26).

Given the teachings of Mackta, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the equine monitor of Sperie to include the first sensor being removably mounted to a pouch, including one or more connectors adapted to cooperate with the detectors, to couple the sensors to the blanket. Doing so would give easy access to the sensor for removal and replacement.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US-892 Notice of References Cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL D'ANGELO whose telephone number is (571) 270-7112. The examiner can normally be reached on Monday-friday 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrell McKinnon can be reached on (571) 272-4797. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL D'ANGELO/
Examiner, Art Unit 4185

/Len Tran/

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